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Assessing violence risk with Aboriginal and Torres Strait Islander offenders: considerations for forensic practice

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Forensic professionals and courts have frequently expressed concern about the susceptibility of contemporary risk assessment tools to cultural bias. Furthermore, progress in the development of valid methods of assessment for offenders who identify from Aboriginal and Torres Strait Islander cultural backgrounds has been slow. This paper considers how cultural perspectives on risk are essential to the development of assessment methods that have greater validity and acceptance by both courts and the community. This will involve considering the social, cultural and political determinants of risk in each cultural group and the identification of those risk factors that are most relevant to forensic decision-making.

Key words: Aboriginal; Torres Strait Islander; culture; forensic psychology; Indigenous; risk assessment; structured professional judgement; violence.

Forensic professionals around the world have been following a recent Canadian court case, brought by Mr Jeffrey Ewert, with great interest (Hart, 2016). Mr Ewert is a Canadian Aboriginal offender who is serving two life sentences for second-degree murder and attempted murder. At the time of the case, he has been eligible for parole for nearly 20 years but had repeatedly waived his right to a hearing on the grounds that it was unlikely to be successful in light of psychological assessment that concluded that he presented a high risk of reoffending. The *Ewert v Canada* (2015) case was, in short, a legal claim made against multiple representatives of the Correctional Services Canada that the assessment tools used to assess his level of risk were inappropriate and, in particular, lacked validity for persons of Aboriginal descent (Haag,

Boyes, Cheng, McNeil, & Wirove, 2016). The tools in question (the Hare Psychopathy Checklist–Revised, PCL–R; the Violence Risk Appraisal Guide, VRAG; the Sex Offender Risk Appraisal Guide, SORAG; the Static 99; and the Violence Risk Scale–Sex Offender version, VRS–SO) are all well known to forensic professionals and are commonly employed by correctional services and expert witnesses in Australia and elsewhere to assess the risk of interpersonal and sexual violence occurring in the future. The results of these assessments are often influential in a wide range of forensic decision-making processes, including offender classification, entry to different treatment pathways, the setting of parole and release conditions and, in some jurisdictions, eligibility for preventative detention (see Olver & Wong, in press).

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However, the Judge in the Ewert case expressed significant concern about their use with Aboriginal offenders, initially concluding that they lacked sufficient validity to provide data that would meet the legal standard of expert evidence. Whilst this ruling was subsequently overturned on appeal (*Canada v. Ewert, 2016*), significant questions were nonetheless raised about the susceptibility of contemporary risk assessment tools to cultural bias, the application of group-level data to individual cases and, more broadly, the scientific underpinnings of actuarial risk assessment (ARA) tools. They are particularly pertinent to forensic practitioners in a context in which the administration of ARAs has come to characterise contemporary assessment practice[1] and, arguably, constitute much of the specific expertise that qualifies assessors to act as expert witnesses.

These, and other, issues have been discussed in a series of articles that followed the handing down of the initial Ewert judgement (see the special issue of *Journal of Threat Assessment and Management*, 2016, Volume 3), as well as more broadly in relation to prisoner mental health (e.g. Shepherd & Phillips, 2016). In this paper, however, we offer a different perspective on the utility of ARAs to assess risk in Aboriginal and Torres Strait Islander prisoners and offenders in Australia.

Actuarial risk assessment

ARAs can be understood in terms of a highly structured approach to assessment, which adopts an explicit coding scheme using factors that have been shown to be empirically related to the prediction of reoffending, and which are usually scored as either present or absent (Beech & Craig, 2012). ARAs that have been developed for use with sexual and violent offenders predominantly utilise static risk factors such as age at first conviction, victim characteristics (e.g. male, unrelated, stranger), developmental factors (e.g. juvenile offender), offence history (e.g. prior sexual and criminal offences, history of violence, non-contact offences), and clinical factors (e.g. evidence of psychopathy; see Craig, Browne, Stringer, & Beech, 2005). Not all instruments include every known predictor; nor, for that matter, are they always consistent in terms of the predictors included. However, validation studies have consistently reported that the predictive validity (see Appendix) of these measures across both samples and jurisdictions is adequate if not good (Tully, Chou, & Browne, 2013). Total ARA scores are then also converted into probabilistic estimates of a reoffence occurring (Mossman, 2013), which are transformed into categorical risk groups (e.g. 'low', 'medium', 'high' risk). In short then, ARA adopts a nomothetic approach whereby probabilistic estimates of offending are provided within a given time frame that is contingent upon the established base rate of the behaviour (Tully et al., 2013). Although it is clear that the predictive accuracy of ARAs is somewhat underwhelming for certain groups, there are studies of general risk–needs tools that have concluded that they can predict reoffending in Aboriginal and Torres Strait Islander cultural groups reasonably well, even if they are slightly less accurate than when used with dominant culture offenders (e.g. Hsu, Caputi, & Byrne, 2009).

There has been one previous attempt to develop an ARA specifically for use with Aboriginal sex offenders in Western Australia. The 3-Predictor model (Allan & Dawson, 2002) measures three domains hypothesised to predict recidivism in Aboriginal and/or Torres Strait Islander sex offenders who participated in a correctional treatment programme – coping skills, release plans and long-term goals – each of which is rated by a programme facilitator. However, the limited sample size upon which the conclusions of the predictive validity study were based (i.e. 39 reoffenders from a sample of 109 sexual offenders) makes it difficult to recommend the wider adoption of this tool. For example, the authors reported perfect prediction for the same three predictors with non-Indigenous offenders but, again this was with a very small sample ($n = 38$), and it is

unclear how the three constructs can be considered to be culturally specific predictors of Aboriginal and/or Torres Strait Islander sexual recidivism. Nonetheless, a later study by Allan, Dawson, and Allan (2006) concluded that the 3-Predictor tool performed better than other measures (the Rapid Risk Assessment for Sexual Offense Recidivism (RRA-SOR), Static 99, Violent Offender Treatment Program Risk Assessment Scale (VOTP-RAS)) on a sample of 538 convicted violent and non-violent sexual offenders. The authors concluded that their study provided tentative support for the argument that risk assessment tools developed overseas should not be used with Aboriginal and Torres Strait Islander offenders without further research. Additionally, they argued that different assessment tools should be developed for violent and non-violent sexual offenders.

There is now a reasonably large literature (knowledge base) that has considered the limitations of ARAs, most notably those used to assess risk in convicted sex offenders. The most notable of these concerns is the deviation from known base rates. As Mossman (2015) has pointed out, the underlying assumption is that the normative data used to translate ARA scores to probabilities of recidivism are constant across all subtypes of sex offenders (e.g. intra- and extra-familial; contact and non-contact), and yet clear within-group differences exist.[2] For example, extra-familial child molesters have consistently been found to have higher reoffence rates than incest offenders, and child molesters with male victims have consistently shown higher reoffence rates than child molesters with exclusively female victims (Harris & Hanson, 2004). As such, the proportion of various subgroups of offender in the sample composition will affect the observed rates of sexual recidivism across studies, potentially compromising the ability of any tool to accurately classify offenders. Thus, whilst an ARA may be effective in terms of ranking individuals from different populations, differences in probabilities associated with each score will

arise due to differences in population base rates (Singh, 2013).

A second, but related, issue is the inherent unreliability associated with efforts to apply group-based risk data to the circumstances of individual offenders (e.g. Berlin, Galbreath, Geary, & McGlone, 2003; Hart, Michie, & Cooke, 2007). For example, an offender who scores 6 on the Static-99 would belong to the 'high-risk' category, with 52% of those with this score in original sample known to reoffend over the 15-year follow-up. What the instrument cannot specify, however, is whether the particular individual 'high'-risk offender belongs to the 52% who sexually reoffended or to the 48% who did not (Berlin et al., 2003). Consequently, it has been suggested that an individual score on an actuarial tool should not be considered a reliable guide to the specific risk presented by an individual, simply because actuarial methods are designed to assign levels of risk to groups rather than to individuals (Mullen & Ogloff, 2012).

Questions have also been asked about the appropriateness of assessments that only consider sexual reoffending as the outcome (given that sexual offenders are more likely to reoffend with a non-sexual than a sexual offence), as well as the construct validity of tools that have been developed atheoretically (with scale construction based purely on correlative associations with a predicted event, typically recidivism; see Craig & Beech, 2010; Rossegger et al., 2013).

In this paper we consider some of these concerns as they relate to the prediction of violence risk in prisoners and offenders who identify from Aboriginal and Torres Strait Islander cultural backgrounds. We do this with the awareness that it is the simplicity, ease of administration and scoring, and relative accuracy of ARAs (Campbell, French, & Gendreau, 2009; Hanson & Morton-Bourgon, 2009; Singh, Grann, & Fazel, 2011) that have served to maintain their popularity, and that alternative assessment approaches will need to be identified that have the potential to overcome the limitations of ARAs. That said,

we also note Craig and Beech's (2010) observation that this apparent simplicity comes with the potential for ARA data to be misused, resulting in the misinterpretation and incorrect presentation of results.

This paper has also been written at a time in which there is growing awareness and professional uncertainty about how the criminal justice system should best address the needs of Aboriginal and Torres Strait Islander offenders. Allard (2010) has, for example, suggested that Indigenous over-representation is the most significant social justice and public policy issue for the Australian and New Zealand criminal justice systems.

A failure to consider the social circumstances in which risk arises

Questions about the use of ARAs with Aboriginal and Torres Strait Islander offenders are not new and have been raised regularly both in the professional literature (e.g. Shepherd & Lewis-Fernandez, 2016) and in legal cases (e.g. McSherry, 2010). The current dialogue around social determinants of health for Aboriginal and Torres Strait Islanders now also includes the need for the formal consideration of social and cultural determinants (Brown, 2014). In the criminal justice arena these discussions typically draw attention to the need to more fully consider the context in which offending occurs before judgements about risk are made. For example, one of the best known Australian cases is *Director of Public Prosecutions for Western Australia v. Mangolamara, 2006*, which was the first of a number of cases in which the weight given to ARA evidence was questioned (see McGlade & Hovane, 2007). In this particular case, the judge concluded that the risk assessment tools used in the assessment 'were not devised for, and do not necessarily take account of, the social circumstances of Indigenous Australians in remote communities', and went on to express 'grave reservations as to whether a person of the respondent's background can be easily fitted within the categories of appraisal presently allowed for by the assessment tools' (*Director of Public Prosecutions for Western Australia v. Mangolamara, 2006*, para 166).

Although there is provision in specialist sentencing guidelines to formally consider the relevance of the social circumstances of Aboriginal offenders (such as the Gladue provision in Canada, and the Fernando principles in Australian law, see Anthony, 2010), there has been no attempt in ARA development to increase what Olver and Wong (in press) have described as 'fairness' in the criminal justice treatment of Indigenous peoples.[3] We echo this sentiment, and add that the ARA development process falls short in terms of examining and including the potentially important social, contextual and cultural factors that impact on risk, response to services, and reintegration (Jones, Masters, Griffiths, & Moulday, 2002). For Jones and Day (2011) these include a range of different factors that are aligned with cultural and social determinants, such as exposure to intergenerational violence (particularly in the formative years) and socialisation into violence, social disorganisation, the subtle physiological and cognitive impacts of foetal alcohol spectrum disorders, a conflicted sense of cultural identity, and unprocessed anger arising from experiences of racism and the effects of inequality and social disadvantage. Other determinants may be a paucity of positive role models, resource people or support services and the use of peer-sanctioned alcohol abuse and social isolation as a way of coping. These are all factors that are not formally considered in contemporary ARAs, and it suggests to us that any issues related to risk are likely to be difficult to address without first understanding the social and cultural context and the impact of a range of other experiences, including forced removals and institutionalised racism, as well as the ongoing protection that is afforded by the strong social bonds to family that exist in many Aboriginal and Torres Strait Islander communities.

A lack of knowledge about base rates

It has been well established that ARA predictive accuracy is lower when used with cultural/racial minorities, and that risk prediction is generally more accurate for White/non-ethnic offenders than it is for those from various ethnic/Indigenous groups. This anomaly has been attributed to differences in offending base rates between ethnicities (Singh et al., 2011), although there is little information available about the base rates of offending both within and between different Aboriginal and Torres Strait Islander communities. As noted above, the underlying assumption of all actuarial risk assessment tools is that the normative data used to translate assessment scores to probabilities of recidivism are constant across offender groups (e.g. Mossman, 2015). The only way to overcome this issue is to conduct local validations of measures with Aboriginal and Torres Strait Islander populations. However, this is far beyond the capacity of correctional agencies and researchers alike. In addition we also note the challenges of completing this type of work with dominant culture groups. For example, there have only been 11 studies *worldwide* that have reported a mean area under the curve (AUC; see Appendix) for one of the most widely used and best developed ARAs, the Static-99 (Hanson & Thornton, 2000), above the AUC that Rice and Harris (2005) define as a large effect size (i.e. AUC $\geq$ 0.714), with 18 other studies reporting a smaller AUC (Tully et al., 2013).

The problem with assuming homogeneity

We argue that the assumption of cultural homogeneity across Aboriginal cultures is flawed, and we also recognise the distinctive characteristics of Torres Strait Island culture. Therefore, any local validation work predicated on the assumption that all Aboriginal and Torres Strait communities[4] have similar experiences of sexual violence is an unsound premise to work from. Furthermore, assuming that ethnicity and culture are discrete categories that offer a convenient approach to demarcating and organising data is also likely to be misleading. Many offenders (and non-offenders, for that matter) affiliate with multiple ethnic groups and various cultural identities. In practice, this means that culture reflects numerous realities rather than a monolithic and universal representativeness (Nakata, 2007). It makes little sense then to conduct validation research, for example, on an 'Indigenous' group that comprises people from the Torres Strait, from Cape York, from the Anangu Pitjantjatjara Yankunytjatjara lands, and/or from metropolitan Perth or Sydney.

An alternative perspective

Lacking in any of the discussions about the Ewert case has been any attempt to understand risk from a *cultural* perspective. A useful starting point here is to note Gillies' (2013) concern about Australian forensic psychologists' continuing failure to operationalise all dimensions of modern Indigenous diversity in their day-to-day practice. She argues that when Aboriginal and Torres Strait Islander clients are assessed using forensic models that adopt a (presumed) culturally neutral data collection framework, an unacceptably assimilationist position is inevitably adopted. This relates, in her view, to the idea that these approaches were developed for dominant culture members either whose connection to cultural institutions is implicitly understood or who are now separated from their pre-existing cultural institutions by migration. Gillies arrived at this conclusion after reviewing the history of the scientific development of statistical methods in psychology, which, she suggested, is inseparable from the development of eugenics theory. She states, for example, that Karl Pearson (of Pearson-*r* fame) advocated the withholding of any form of aid to the dispossessed Indigenous peoples of the British empire, declaring

Australia as the best example of 'masterful human progress . . . where the lower race had given way to a great civilisation' (Pearson, 1901, p. 41). She further notes that 'prior to the establishment of a training school for administrators of Aborigines in Australia at the University of Sydney School of Anthropology, British administrators who established careers in Australia were mostly trained as affiliates of the University College London where Pearson taught' (Pearson, 1901, p. 19).

For Gillies (2013), the adoption of a culturally neutral position inadvertently continues this colonisation dynamic whereby culturally relevant data during the formal assessment stage are suppressed (in the name of science). This process is described as an example of institutional racism, or 'unintentional racism resulting from inadequate resource development and practitioners having no alternatives but to adopt an assimilationist stance' (Gillies, 2013, p. 15). From a cultural perspective, it is quite possible to view the application of ARAs with Aboriginal and Torres Strait Islander offenders in this way.

Shepherd and Lewis-Fernandez (2016) talk about this issue, but in a different way, also noting how risk assessment instruments have been operationalised through a Western lens, with content often reflecting the practices, perceptions, norms, belief systems and behavioural expectations of Western dominant culture. They give the concrete example of the inclusion of familial risk factors (such as 'family disruption', 'childhood supervision', 'caregiver separation', 'parental and peer criminality', and 'intimate partner characterisations'), which may have a different meaning for those who live with various extended family members at different times (a common cultural arrangement in many Aboriginal and Torres Strait Islander cultures). The danger here is that this results in judgements of risk that are inappropriately elevated, to the disadvantage of Aboriginal and Torres Strait Islander offenders.

These observations can be attributed to a fundamental issue: that contemporary assessments tools are culturally bound and have emerged from a largely atheoretical approach where scale construction is based on correlative associations with a predicted event, typically recidivism (see Rossegger et al., 2013), that is largely independent of the social context in which risk emerges. The challenge then is to find ways in which contextual considerations can be better incorporated into assessment of risk in ways that improve the ability to predict future violence.

Two different approaches are possible, although neither has been successfully applied to the assessment of risk in Aboriginal and Torres Strait Islander people. The first, a move away from actuarial tools to structured professional judgement tools, is pragmatic. The second, to develop better theories of risk that can guide assessment practice, is more foundational. Both approaches are discussed below, but from the outset we contend that there cannot be any 'best practice' in risk assessment with Aboriginal and Torres Strait Islander offenders, but only *important considerations* that apply to the circumstances and cultural background of the individual. In our view, the notion of 'best practice' itself assumes a homogeneous vision of reality that can be addressed by some ostensibly approved procedures. Despite some shared histories of colonisation and dislocation from resources, we reiterate that the experience of Indigenous peoples around the world is diverse (Durie, 2005). There is a very real danger that calls for best practice not only simplify the task but are also an inadvertent appeal to stereotypes (or even caricatures) of Aboriginal and Torres Strait Islander peoples that can devolve into a thinly disguised form of racial profiling.

Structured professional judgement

Structured professional judgement (SPJ) risk assessment tools were developed to address the inflexibility of ARAs. These instruments

are composed of risk and/or protective, static and/or dynamic factors that empirical research or theory has shown are associated with the adverse event of interest (e.g. violence, sexual offending; Douglas, in press). Total scores can be used as an aide-memoire to guide a categorical risk judgement (e.g. 'low', 'moderate', or 'high'), which is then combined with case-specific information gained through clinical experience with the person being evaluated. Total scores are, therefore, not used as statistical predictors of risk but as part of a case formulation process (Brown & Singh, 2006; Rettenberger, Boer, & Eher, 2011).

According to Mullen and Ogloff (2012), a major benefit of the SPJ approach is its greater transparency, although this will inevitably depend on the expertise of the user and highlights the need to ensure that assessors have sufficient training. This also introduces concerns about the reliability of ratings and the potential for bias to be introduced. Moreover, they advocate using tools that have been designed for use with specific populations. In the case of serious sexual offenders, the SPJ with the most empirical support is the Sexual Violence Risk–20 (SVR–20; Boer, Hart, Kropp, & Webster, 1997). Another SPJ for sexual offenders, the Risk for Sexual Violence Protocol (RSVP; Hart, Kropp, & Laws, 2003) is available, although Davis and Ogloff (2008) have pointed to the lack of published data regarding predictive accuracy for this tool.

The greater flexibility in the way in which an assessment is conducted afforded by SPJ approaches is that it becomes possible to integrate some of the most commonly identified culturally specific risk factors. The advantage is that content validity and comprehensive coverage is improved, whilst reducing the chance that important determinants of risk are overlooked. There is more scope then to incorporate information about how multiple developmental pathways, learning histories and available lifestyle choice structures that are informed and constrained by cultural,

socio-economic and political realities might influence risk. Shepherd (2015, 2016) has argued that sufficient commonalities exist within Indigenous groups to broaden certain categories of risk factors to encompass typical practices and understandings (i.e. family/kinship systems, cultural specific bereavement coping strategies). Further consultation on these areas may also help to identify insensitive item content and allow more culturally appropriate language to be introduced in risk assessments. In addition, community consultation may uncover unique salient risk (and protective) items that are believed to be important.

Douglas (in press) also notes that SPJ measures adopt a principled, narrative risk estimation and communication method where risk is simply defined as 'low', 'moderate', or 'high'. This allows for more flexibility in the judgements that are made, allowing the assessor to identify which particular risk factors are most *relevant* to any overall judgement. In other words, risk factors are not weighted algorithmically or presumed to have equal importance for all people. For Douglas, this method of coding risk factors represents a bridge between science and practice, or between the nomothetic and idiographic levels of analysis.

Another strength of SPJ is that it feeds directly into the identification of risk management strategies – based on addressing those risk factors that are identified as most relevant in the case conceptualisation. For these reasons, all SPJ instruments focus on understanding those risk factors that are potentially changeable and have the potential to move the focus away from the classification of offenders and on to those interventions that may be required to maintain safety.

Theories of risk

As noted above, assessment approaches which de-contextualise risk are a poor fit with Aboriginal and Torres Strait Islander worldviews, which are often holistic and emphasise

context and relationships between elements, rather than the primacy of elements themselves. Theoretically, consideration of social context allows for greater consideration of how risk develops over time and the vulnerabilities that exist both within the individual (i.e. psychological risk) and within the environment (i.e. social risk).

An aetiological model of risk proposed by Beech and Ward (2004) and Ward and Beech (2015) has proposed that what are often referred to as 'stable dynamic risk factors' can be best understood as markers of *psychological vulnerability* (e.g. self-regulation, offence-supportive cognitions) that increase an individual's propensity to offend, rather than as causal factors (see also Mann, Hanson, & Thornton's, 2010, notion of psychologically *meaningful* risk factors). In this way, risk factors are conceptualised as individual propensities, which, like traits, involve enduring characteristics (i.e. feelings, thoughts and behaviours), the expression of which is predictable (although the timeframe in which that expression occurs is not). Importantly, these propensities are also an expression of the individual's interaction with both the environment and its inhabitants. Consequently, risk may arise in particular ways through consistency in self (i.e. via individual propensities) *and* through consistencies in the environment (e.g. gravitating towards high-crime neighbourhoods, criminal associates). In this sense, attention is drawn to importance of understanding the socio-cultural environment in which risk might arise.

The identification of culturally meaningful risk factors is, however, only part of the picture; it is the *meaning* of the factors and the *relationships* between these concepts that will have the biggest implications for forensic decision-making.

Discussion

In an important sense, risk assessment is more than a matter of statistical accuracy or even clinical decision-making, but rather a matter of social justice. For instance, risk assessment is often used in correctional settings to allocate resources on the basis of membership of a group that has a higher probability of inflicting further harm to the community. From a fiscal perspective, the approach offers an eloquent heuristic to guide the distribution of rehabilitative resources, whilst at the same time assuming that the agency of the individual should take primacy as the centre of change efforts. In other words, risk becomes defined as something that is located in the individual rather than in the environment. The consequence is that ARA requires minimal offender input and that the views of family or the community are considered unimportant, irrelevant, or as a reflection of a misunderstanding of the very nature of risk. This in turn serves to alienate both the individual being assessed and the community from which he or she lives, and may be interpreted as discrimination in a cultural context in which relationships take primacy. To put this another way, a very real question that arises then is whether the purpose of the current risk assessment development agenda is to improve community wellbeing or simply to integrate offenders into a prevailing economic and political ethos that maintains the status quo of discrimination and disenfranchisement of Aboriginal and Torres Strait Islander Indigenous peoples. This is in a context in which the gross over-representation of Aboriginal and Torres Strait Islander peoples in criminal justice systems is well documented (they comprise only 3% of the general Australian adult population, yet represented 27% of the total full-time prisoner population as at March 2015; Australia Bureau of Statistics, 2015).

On balance, we support the conclusions of Shepherd and Lewis-Fernandez (2016), but suggest that a useful way forward is to place efforts into the development of structured professional judgement tools that have the flexibility to encompass cultural understandings of both risk and its effective management. The content of such a tool, however,

has yet to be determined, and it is here that serious consultation with the communities from which offenders come from (and will return) is required. What, in our view, has been notably missing from all of the professional discussions of the *Ewert* case is the role that the community can play in shaping practice. It also seems self-evident to us that any strategies and practices that forensic professionals adopt will have little impact if communities are not sufficiently empowered to exercise real leadership and implement local responses and initiatives. In this sense, risk assessment becomes a *shared responsibility* between researchers, professionals and the community. It also follows that any adequate understanding of what the relevant risk factors are for a particular individual will rely on active consultation with the communities that he or she comes from.

In many ways these observations are far from new. Cross-cultural researchers and practitioners will already be familiar with the ethical imperative to consider the interface of science and Indigenous peoples and the impact of research on Indigenous communities both in Australia and overseas (e.g. Durie, 2005; Gray & Hetherington, 2007; Martin, 2003). However, it seems that forensic professional and criminal justice agencies have been particularly slow to understand the need to recognise the validity of Aboriginal and Torres Strait Islander knowledge and protect the dignity of Indigenous peoples and the communities that they come from.

Conclusion

It would be premature to conclude this paper with a set of concrete recommendations for practice, other than to reiterate the importance of consulting with Aboriginal and Torres Strait Islander communities to identify those contextual factors that have the potential to impact on future risk. This, in our experience, is rarely the practice of forensic professionals and expert witnesses who work in this area, and there is a need for a much

more critical appraisal of the tools that are used (and the limits of expertise) than is currently the case. Concomitantly, there is a need for foundational work theorising violence in Aboriginal and Torres Strait Islander communities to identify commonly occurring socio-cultural factors and translate this into a set of practice guidelines that can used to inform professional assessments of risk. Finally, this is not a call for a return to the use of unstructured clinical judgement when assessing offenders. On the contrary, it is a call for renewed efforts to improve the validity of current assessment approaches.

In conclusion, it is evident that current actuarial risk assessment tools have largely failed to achieve authenticity and credibility within both Aboriginal and Torres Strait Islander communities and, at times, within the courts. Clearly greater efforts are needed to improve practice in this area, and this has to involve understanding risk in ways that connect much more closely with community and cultural understandings (Healing Foundation, 2015). There is much work to do here, but just as psychiatric frameworks are increasingly considering the centrality of family, acculturation strain, religiosity, gender role expectation and other factors in minority groups, so should the forensic assessment of risk.

Notes

1. It has, for example, been argued that 'courts should insist that [ARA] be employed as a major instrument of risk assessment' (Janus & Prentky, 2003, p. 1).
2. Figures reported from the meta-analysis conducted by Hanson and Bussière (1998), for example, indicated an average sexual recidivism rate of 18.9% for rapists and 12.7% for child molesters. Bartosh et al. (2003) have reported sexual reoffence rates of 5% for rapists, 14% for extra-familial child molesters, 11% for incest offenders, and 35% for 'hands-off' offenders, using rearrest as evidence of recidivism over a follow-up period ranging from 60 to 66 months. In a meta-analysis with a total combined sample of 4724 sexual

offenders producing sexual recidivism estimates for periods of up to 15 years, Harris and Hanson (2004) did find that the combined overall recidivism rates for all offenders (14% after 5 years, 20% after 10 years and 24% after 15 years) were similar to those for rapists (14%, 21% and 24%) and the combined group of child molesters (13%, 18% and 23%). Significant differences were reported, however, between subgroups of child sexual offenders. Incest offenders (6%, 9% and 13%) had similar rates to extra-familial girl-victim child offenders (9%, 13% and 16%); both were significantly lower than the rates for extra-familial boy-victim child offenders (23%, 28% and 35%).

3.   This term is used here as Olver and Wong are writing from a Canadian perspective.
4.   In Australia alone, for example, there are thought to be over 600 distinctive cultural and language groups, and it is likely that significant differences exist between each of them.

Study with no human participants

Ethical standards

Declaration of conflicts of interest

Andrew Day has declared no conflicts of interest. Armon Tamatea has declared no conflicts of interest. Sharon Casey has declared no conflicts of interest. Lynore Geia has declared no conflicts of interest.

Ethical approval

This article does not contain any studies with human participants or animals performed by any of the authors.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Appendix   Predictive accuracy

The most common statistic employed to report the predictive accuracy of an actuarial risk assessment (ARA) tool is the receiver operating characteristic (ROC) curve (Mossman, 2013; Rice & Harris, 2005). ROC analysis allows for varying levels of confidence about whether an *either/or* event will occur and provides descriptions of detection accuracy that reflect these varying levels. In other words, ROC analysis separates the effects of base rates and decision thresholds from the intrinsic detection capabilities of instruments used to assess the recidivism potential of sexual offenders and the risk of future violence. Whilst ROC analysis provides several ways of summarising prediction accuracy, the most commonly used indices are area under the curve (AUC) and effect size. An AUC is a simple summary of overall accuracy (Hanley & McNeil, 1982) and answers the question, 'If we randomly select one offender from the serious sexual offender (or violent group) and one from the non-sexual offender (or non-violent) group, what is the probability that a clinician would have assigned a higher probability of sexual/violent offending to the individual who actually offended?'. A perfect prediction method (i.e. one that always gives a randomly chosen recidivist a higher rating than a randomly chosen non-

recidivist) would have an AUC of 1.0 whereas a prediction method that provides no information about future behaviour (i.e. a method no better than a coin toss at distinguishing between a recidivist and non-recidivist) would have an AUC of 0.5. The proportion of the graph falling under the curve reflects the proportion of true positives divided by false positive for every possible classification threshold. An effect size calculation also summarises the overall accuracy of a prediction method. The measure used is Cohen's *d* (Cohen, 1988), which represents the standardised mean distance between ratings of members of the offending group (e.g. violent offenders, sexual offenders) and the non-offending group. The convention is to convert AUC values to Cohen's *d* using the values of 0.20, 0.50 and 0.80 as 'small', 'medium' and 'large', respectively (Cohen, 1988). In the broad field of behavioural research this has come to represent AUC values of 0.56, 0.64 and 0.71 (Rice & Harris, 2005). Criticism has been levelled at adopting the 'small', 'medium', 'large' classification without heeding Cohen's (1988) sentiments when assigning those labels as a rule of thumb (in the estimation of effect sizes). In fact, Cohen pointed out that such arbitrary labels would be problematic and 'run a risk of being misunderstood' (Cohen, 1988, p. 12). Rather than being the 'guesstimate' he had proposed, they have become standards by which accuracy is judged. It is worth noting that Rice and Harris (2005) acknowledged that these categories were provided as a tentative rule of thumb.